

Weed Seed Bank

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The Biological Control Program established a seed bank in 1979 in order to have seeds available for propagation of host plants for biological control projects. Wild-collected species are collected from several regions of the state representing different geographic and climatic conditions. The seed bank also includes accessions obtained from commercial seed suppliers. Each collection typically consists of between 200 to 3,000 seeds. The seed bank supports tests of biological control agents with potential for release in California. Local biotypes of the target species and non-target species, including both native plants and crop species are maintained. The seeds are used by the Biological Control Program and by other researchers who screen natural enemies for host specificity.

During 2002, the conversion of the seed bank database from File Maker Pro on a Macintosh to MS Access on a Personal Computer was completed and the database was improved. Several seed lots that had been collected but never entered into the seed bank were finished. Additional new collections were made to support several projects that are entering the host-testing phase. A total of 173 accessions were added to the seed bank, representing 91 species. The collection currently contains 387 accessions representing 156 species, up last year from 215 accessions representing 73 species.

The Seed Bank sent out 123 seed lots representing approximately 100 species to cooperating agencies/researchers. Recipients included Massimo Cristaforo, Rome, Italy, Dr. Andy Shepard's group at Montpellier, France, Dr. Lincoln Smith, United States Department of Agriculture (USDA), Albany, Dr. Bill Bruckart, USDA-Ft. Dietrick, MD, Dr. Richard Hansen, USDA, Bozeman, MT, and Keith Colpetzer (mile-a-minute). The seeds supported testing for Yellow starthistle, the weedy brooms, Russian thistle, and mile-a-minute weed.